



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,193	09/10/2001	Klas Kristrom	SUNDS-123	2388

7590

04/05/2006

Lerner David Littenberg
Krumholz & Mentlik
600 South Avenue West
Westfield, NJ 07090

EXAMINER

KOHNER, MATTHEW J

ART UNIT

PAPER NUMBER

3653

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/936,193	KRISTROM ET AL.	
	Examiner	Art Unit	
	Matthew J. Kohner	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10, 11 and 13-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10, 11 and 13-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 11 and 13-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 3,404,065 to Ingemarsson ("*Ingemarsson*") in view of US Patent No. 4,676,903 to Lampenius ("*Lampenius*").

In regard to claims 10, 22 and 24, Ingemarsson discloses an apparatus for separating a fiber suspension (Col. 1, line 14) which includes:

- a housing (see Fig. 1);
- a stator (18) mounted centrally within said housing (See Fig. 1);
- a rotary screen (32) rotatably mounted between said housing and said stator thereby

dividing said housing into

- a screen chamber (see Fig. 1) between said housing and said rotary screen; and
- an accept chamber (See Fig. 1) between said rotary screen and said stator;
- an inlet (36);
- a reject outlet (48);
- an accept outlet (56).

While Ingemarsson does disclose at least one barrier member (60) fixedly attached to the stator and extending axially along the length of the stator (See Fig. 1) wherein the barrier member extends radially from the stator to the rotary screen (See Fig. 2), wherein the accepted fiber suspension is substantially prevented from tangentially passing the barrier member and the barrier member creates a pulse through the rotary screen, wherein the at least one barrier member includes a pulse surface (See Fig. 2; see also col. 7, lines 57 et seq.), Ingemarsson does not disclose a barrier member with pulse surface having a shape such that the distance between said pulse surface and said rotary screen decreases in the direction of rotation of said rotary screen, the decrease beginning from that intersection of the barrier member and the stator.

However, Lampenius discloses:

- at least one barrier member (see e.g. Fig. 2 or 3) fixedly attached to the stator and extending axially along the length of the stator (see e.g. Fig. 2 or 3) wherein the barrier member extends radially from the stator to the rotary screen (See Fig. 2), wherein the accepted fiber suspension is substantially prevented from tangentially passing the barrier member and the barrier member creates a pulse through the rotary screen;
- wherein the at least one barrier member includes a pulse surface (See Fig. 2, see also col. 3, lines 25 et. seq.) facing the rotary screen wherein the pulse surface has a shape such that the distance between said pulse surface (2 and 3) and said rotary screen decreases in the direction of rotation of said rotary screen, the decrease beginning from that intersection of the barrier member and the stator (see e.g. Fig. 2 or 3).

It would be obvious to one of ordinary skill in the art to use the barrier member of Lampenius in Ingemarsson's device. The motivation to make the combination is provided directly from the references. Lampenius discloses it is well known in the art to have a barrier member with a pulse surface wherein the leading edge of the pulse surface extends towards the screen until a minimum clearance point (col. 3, lines 25 et seq.). This structure for the pulse surface creates a positive pulse (*Id.*). This positive pulse contributes to induce flow in the screen zone through the apertures within the screen (*Id.*). Therefore, using a structure such as Lampenius' barrier member would contribute to induce flow in the screen zone through the apertures within the screen. Further, there is additional motivation to use Lampenius' structure in Ingemarsson's device. Lampenius' barrier member includes a side plane 4 which produces negative pulses which are effective in keeping the screen from plugging (col. 4 ,lines 15-20). These negative pulses produced by Lampenius' barrier members would, when used in Ingemarsson's device, function just as Applicant's device (alluded to in Applicant's remarks page 8, wherein Applicant describes the negative pressure along the backside of barrier element pulling the less course material back into the accept chamber). Therefore, the substitution of Lampenius barrier member into Ingemarsson's device would not only contribute to induce flow in the screen zone through the apertures within the screen, but also produce negative pulses. Therefore, it would be obvious to one of ordinary skill in the art to use Lampenius' barrier member in Ingemarsson's device.

In regard to claim 11, see Ingemarsson col. 1, line 14.

In regard to claims 13-15, see Lampenius Fig. 2. In particular regard to claim 15, Fig. 2 discloses the pulse surface 2 and 3 is non-linear.

In regard to claims 16 and 17, see Ingemarsson Fig. 1, see also col. 6, lines 18 et seq.

In regard to claims 18-19, see Lampenius Fig. 2.

In regard to claim 20, Lampenius does not appear to specifically disclose the exact amount of distance between the barrier member and the screen, however, it would be obvious to one of ordinary skill in the art to make the minimum distance from 4-10mm.

In regard to claims 21 and 23, see Lampenius Fig. 2 or 3.

In regard to claim 25-27, see Lampenius col. 2, lines 25 et seq.

Response to Amendment

Applicant's amendment to claim 15 overcomes the 112 rejection of the previous office action.

Response to Arguments

Applicant's arguments filed Jan 13, 2006 have been fully considered but they are not persuasive. Applicant has argued the two references used in the 103 combination "operate in completely opposite manners and any attempted combination of the two references would not have been obvious to one of ordinary skill in the art at the time of the invention" (Applicant's remarks, page 7). Examiner disagrees. Examiner does not dispute that Lampenius operates with a stationary screen and a rotor element for screening from the inside out and Ingemarsson operates with a rotary screen with a stator for screening from the outside in. However, that does

not effect the combination of taking the pulse member of Lampenius and using it in Ingemarsson. The references are in analogous arts and Lampenius discloses an effective pulse member. This would aid in Ingemarsson's device for the reasons listed above in the 103 rejection.

Applicant further argues that Lampenius is used for fine pulp suspension and Ingemarsson is used for coarse pulp suspensions and therefore they cannot be combined. Again, Examiner disagrees. Examiner submits that using the pulse member of Lampenius in Ingemarsson's device would create a more effective pulse. Therefore, the environments in which the references are used are irrelevant because it is only the pulse member shape of Lampenius which is used in the combination, not the entire screening device.

Examiner therefore concludes that absent any showing of unexpected results of improved performance from Applicant's device, the combination would have been obvious to one of ordinary skill in art at the time the invention was made.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kohner whose telephone number is 571-272-6939. The examiner can normally be reached on Mon-Fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on 571-272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matthew J. Kohner
Examiner
Art Unit 3653

mjk



**KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600**